Saskatchewan
Education

Comprehensive Education: A Challenge for Saskatchewan

Report of the Technical-Vocational Education/Comprehensive High Schools Review Committee

February, 1987

January 12, 1987

Honourable Lorne Hepworth
Minister of Education
Legislative Building
Regina, Saskatchewan
S4S 0B3

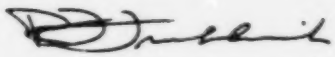
Dear Mr. Hepworth:

In February of 1986, I had the privilege of being asked to chair the Minister's Technical-Vocational Education/ Comprehensive High Schools Review Committee. The Committee was established to advise the Minister regarding technical-vocational programming and, as well, to advise as to the role and purpose of comprehensive high schools. In fulfilling our mandate, we have provided a definition of the Practical and Applied Arts as referenced in the Core Curriculum Proposals and have emphasized the concept of comprehensive education as reflected by delivery mechanisms of all secondary schools in the province.

I would like to thank the Committee members for their dedication and commitment to the project. While the members represented different points of view, they worked together to provide a framework for action for the improvement of education for all students in Saskatchewan.

Thank you for giving us the opportunity to provide you with our findings and recommendations.

Yours truly,



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Acknowledgements

The Minister's Technical-Vocational Education/Comprehensive High Schools Review Committee was established in February, 1986. Its membership included representatives of teachers, principals, directors, school trustees, the two universities, the Indian and Metis Curriculum Advisory Committee, community college trustees, and the federal and provincial governments.

The Minister's Review Committee met eight times from February to December, 1986.

This report is the culmination of the activities of the Committee.

The Committee thanks the Saskatchewan Education Secretariat for its assistance and support throughout the project. This support team comprised Bob Arkell, John Daviduk, John Edwards, Ken Hepp, and Phil Schalm. Special note is made of the extensive work done by Ken Hepp in preparing the information base used by the Committee.

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Summary of Recommendations

In 1984, the Minister's Advisory Committee on Curriculum and Instruction Review said in **Directions:**

> Saskatchewan has a good system of education. There are, however, indications that the needs of some students are not being met and that education must adapt to keep step with social and technological changes.

The Technical-Vocational Education/Comprehensive High Schools Review Committee reiterates that view. During the past year, the Committee has examined two major dimensions of our education system. It formulated recommendations for change in a spirit of co-operation and with a genuine excitement about the quality of secondary education that we can deliver to our youth.

These recommendations are intended to define the practical and applied arts and to establish their place in our secondary schools. These recommendations also endeavour to identify what needs to happen in order to provide all secondary school students in Saskatchewan with improved access to the range of courses and experiences best suited to their individual abilities, needs, and interests.

The Practical and Applied Arts in the Secondary School Program

1. It is recommended that the Minister of Education adopt the following definition of the practical and applied arts.

   The practical and applied arts should include but not be restricted to the subjects within industrial arts, home economics, business education, and technical-vocational education. They are intended to acquaint students with day to day aspects of adult life, including employment, family responsibilities, and leisure. These courses are typically delivered in regular classrooms, laboratories, or shops, but sometimes may be delivered best by outside agencies or through the use of community and distance education resources.

   Curriculum developers and teachers are encouraged to incorporate the following purposes into these courses:

   - to enhance the quality of student life
   - to provide a balance of theory and practice, that may vary from course to course
   - to apply and enhance principles and concepts acquired in other courses
   - to incorporate the common essential learnings
   - to develop skills in the manipulation of equipment and materials
   - to provide an opportunity to explore a variety of electives to assist in vocational and avocational choices
   - to assist students to meet graduation requirements in various ways
   - to provide specialized learnings to assist students to access post-secondary institutions and employment opportunities
   - to create an attitude for lifelong learning.

Curriculum

2. It is recommended that in order to graduate from secondary school, a student must earn a minimum of 24 credits, at least three of which must be earned in the practical and applied arts.

3. It is recommended that provincial policy and programs be developed to permit gifted and low achieving students to graduate by meeting requirements alternative to those set out for most students.

4. It is recommended that a Practical and Applied Arts Standards Committee be created to advise Saskatchewan Education on the establishment, implementation, and monitoring of standards for courses, services, facilities, and equipment particular to practical and applied arts programming in Saskatchewan, with representation from large and small schools, post-secondary institutions, and the provincial government.

5. It is recommended that Saskatchewan Education establish clear policy and guidelines to be followed when establishing locally developed and modified courses, including requirements for review processes.

6. It is recommended that the numbering system for the secondary school course list be revised and condensed by Saskatchewan Education, with obsolete course numbers rendered inaccessible for current registrations, and with practical and applied arts courses clearly designated.

7. The Committee endorses the process of curriculum development set out in **Directions,** and it recommends that provincial curriculum guides be maintained through revision, updating, publication, and implementation on an ongoing basis, with objectives, suggested teaching strategies, and criteria for evaluation and monitoring set out clearly.

8. It is recommended that Saskatchewan Education retain and expand the use of consultants in order to meet the curriculum development needs in each of the practical and applied arts areas.

9. It is recommended that, where appropriate, Saskatchewan Education develop practical and applied arts courses as competency based modules.

10. It is recommended that, wherever possible, work experience be available to students in the senior grades to better prepare them for their future.

11. It is recommended that Saskatchewan Education establish means whereby representatives of business, labour, industry, and agriculture can advise on course contents.

Guidance and Counseling

12. It is recommended that career guidance and counseling services be provided to all students, including those in elementary and middle years. Boards of education should investigate all possible options to ensure provision of appropriate services.

13. It is recommended that students be provided experience in career planning and have access to career information, including information on the labour markets, post-secondary training opportunities and entrance requirements, and self-employment, utilizing federal and other sources of information.

Linkages

14. The Committee supports the establishment of an interdepartmental steering committee to review and regulate articulation between the kindergarten to grade 12 system, post-secondary institutions, and the workplace, with membership from Saskatchewan Advanced Education and Manpower and Saskatchewan Education. It is recommended that this steering committee's first task be to draft a provincial policy on articulation of programs at the secondary and post-secondary levels that provides for

    a) clearer definitions of exit and entry requirements,
    b) utilization of both in-school and community based resources and equipment in practical and applied arts courses,
    c) opportunity for students to gain credit by demonstrating their competency when entering pre-employment training, and
    d) opportunity for students to gain trade time recognition for time spent in trade oriented programs in high schools.

15. It is recommended that communications be made an ongoing process at the local level among institutes, community colleges, and schools, for treatment of such matters as curriculum, counseling, and use of facilities.

Facilities and Equipment

16. It is recommended that facilities and equipment in schools be upgraded in order to improve the overall quality of practical and applied arts programming, within standards set out by the Practical and Applied Arts Standards Committee.

17. It is recommended that the established school health and safety standards be published and distributed by Saskatchewan Education, accompanied by an implementation and maintenance plan.

18. It is recommended that boards of education set up and implement policy for school safety and ongoing equipment repair and replacement in practical and applied arts courses.

19. It is recommended that Saskatchewan Education extend its consultation to school divisions by providing and maintaining a list of recommended equipment specifications and by advising schools on future trends.

Teacher Education and Recruitment

20. It is recommended that boards of education be urged to recognize the particular inservice education needs of practical and applied arts teachers, including industry oriented programs.

21. It is recommended that the universities continue to offer summer classes in the teaching of practical and applied arts, and that these courses be open to all certificated and prospective teachers.

22. It is recommended that the universities be encouraged to establish, where necessary, and maintain all practical and applied arts areas as major and minor fields of study.

23. It is recommended that greater emphasis be given by Saskatchewan Education and boards of education to the education and retention of practical and applied arts teachers.

Delivery of Comprehensive Education

24. It is recommended that the Minister of Education support the provision of comprehensive education to all students in Saskatchewan.

Funding

25. It is recommended that Saskatchewan Education find means to provide at least its current level of incremental comprehensive education funding for all Division IV students in Saskatchewan's publicly funded schools.

Distance Education

26. It is recommended that Saskatchewan Education initiate a consultation process aimed at providing a variety of distance education support services to schools in order to improve comprehensive programming, and that Saskatchewan Education act quickly in co-operation with boards of education to conduct pilot and developmental projects in distance education.

27. It is recommended that Saskatchewan Education, in collaboration with other government departments and the universities, initiate, expand, and develop quality distance education services, including the establishment of Saskatchewan Communications Advanced Network.

28. It is recommended that emphasis in distance education be placed on the development and implementation of quality instructional materials, teacher readiness to use such instruction, and the delivery of distance education by utilizing the resources available at the interprovincial, provincial, and regional levels.

Support Systems

29. It is recommended that Saskatchewan Education and boards of education give attention to the special needs in comprehensive education, including the formulation of policy for the replacement and upgrading of equipment, and the establishment of an information network related to the maintenance and replacement of equipment and facilities.

30. It is recommended that Saskatchewan Education, in co-operation with Saskatchewan Advanced Education and Manpower, the Saskatchewan Teachers' Federation, and the Saskatchewan School Trustees Association, initiate a biannual comprehensive education conference as a mechanism for supporting the delivery of comprehensive education in Saskatchewan.

31. It is recommended that Saskatchewan Education, the Saskatchewan School Trustees Association, and the Saskatchewan Teachers' Federation establish means for boards of education to monitor systematically the delivery of comprehensive education in Saskatchewan, with attention to such elements as program breadth and depth, student access to and enrolment in courses, student retention, equipment, student and staff safety, and efficiency of operations.

Lifelong Learning

32. It is recommended that Saskatchewan Education, Saskatchewan Advanced Education and Manpower, and the affected community colleges and boards of education co-operate to provide adults with appropriate access to secondary school credits, academic and life skills upgrading, assistance in career planning, and updating and upgrading job related skills.

Chapter One
Introduction to the Review

In 1984, the Minister of Education initiated an assessment of high school technical and vocational education and a review of the philosophy and role of the comprehensive high schools in Saskatchewan.

Context of the Review

This review originated from two sources. The department saw a need to review the appropriateness of secondary education programs that exist outside the traditional academic component, in order to ensure a clear articulation between core curriculum and the balance of the secondary program. At about the same time, comprehensive high school principals and some comprehensive high school trustees approached the Honourable Gordon Currie, Minister of Education, to express their desire to see a thorough review of the philosophy, role, and support structures for comprehensive high schools.

This review is part of a larger secondary school renewal which Saskatchewan Education has undertaken.

The driving force of the renewal is core curriculum policy development, which is concerned with the overall structure of the school curriculum and the definition of secondary school graduation requirements. The core curriculum policy informed this Committee's work and, was in turn, informed by it.

There are other complementary activities within the secondary school renewal.

Saskatchewan Education and Saskatchewan Advanced Education and Manpower are working together to resolve problems in linkages among secondary schools, post-secondary institutions, and the workplace. The Articulation Forum, held in May 1986, in which this Committee actively participated, was a first step in problem identification and problem solving in this arena.

The final component of renewal is alternative program policies development by Saskatchewan Education, which is concerned with the exploration and possible creation of alternative paths to grade 12 graduation for low achieving and gifted students in Saskatchewan.

Structure and Scope of the Review

In view of the complex interrelationship of technical and vocational education with students, teachers, administrators, communities, and outside agencies, it was necessary to conduct this review in three stages, namely: stage one, the acquisition of information; stage two, the appointment of the Review Committee; and stage three, the preparation of this report for the minister.

Stage One. Under stage one of the review, the following information bases were compiled for subsequent use by the Committee.

- reactions to existing program policies as submitted through solicited and unsolicited briefs and letters by organizations and private individuals
- information received from representatives responsible for comprehensive high schools
- an analysis and synopsis of the 156 briefs submitted to the Minister's Advisory Committee on Curriculum and Instruction Review
- a review of the literature on the approaches and philosophies implemented in other provinces
- an analysis of course utilization across all Division IV schools in the province
- a statistical analysis of the provincial teaching force

- an examination of federal-provincial agreements and shared responsibilities within the context of the historical development of technical and vocational education in Saskatchewan
- a synopsis of the issues and concerns identified throughout the review process.

As part of stage one of this review, the issues and concerns derived from the information bases were classified into the following 10 main areas. The contents and the range of concerns identified within each area are summarized below.

1. **Philosophy and Role.** Questions of the philosophy and role fell into three broad areas: What is the place of practical and applied arts (technical-vocational education, business education, home economics, and similar areas) in the secondary school? By what means is the role of comprehensive high schools and comprehensive education defined, and, in particular, what part does the local community play in this definition? Can the secondary school provide for continuity of learning within and beyond high school?

   Comments to the Committee

   Place of Practical and Applied Arts. The Committee was told that high schools should prepare students for diverse careers and not take over responsibilities that should be assumed by industry; however, the practical and applied arts are to be a vital part of a general education for all students and should not be designed only for those who are not academically inclined.

   Relationship with Community. In the Committee's view, the relationship of comprehensive high schools with their respective communities has been positive. Some communities have demonstrated their support of the philosophy and the programs being offered by donating equipment, and by accepting graduates through the local employment market. Overall, the community was seen to be a major influence in defining the school program offerings, both through the board of education and through direct links with business, industry, agriculture, and labour.

   It was reported to the Committee that good rapport with the local community is seen to be important. Through this relationship program offerings may be extended beyond the general education mode to pre-employment training and lifelong learning.

   It was clear that local populations have defined comprehensive education differently to suit the communities' needs. For example, among the comprehensive high schools there exists a variety of program definitions.

   Continuity of Learning. There was support for the idea that lifelong learning should be the keystone of all educational policies. With the rapid changes that are occurring in knowledge and technology, and the relative uncertainty of employment, it is becoming crucial that a student sees education as a lifelong quest.

   The Committee was advised by some that school/educational facilities should be financed, established, and operated in such a manner that the facility is accessible to all citizens.

2. **Curriculum and Instruction Review.** Concern focused on the recommendations contained in **Directions,** particularly those calling for a common core curriculum.

   Comments to the Committee

   Concern was expressed to the Committee that the proposed core curriculum will decrease the opportunity for students to select electives in grades 10, 11, and 12.

3. **Articulation.** A major set of issues revolved around the apparent inability or unwillingness of different institutions and levels of government to engage each other in genuine problem solving efforts.

Comments to the Committee

Articulation with Technical Institutes and Universities. Inadequate articulation between Saskatchewan Education and Saskatchewan Advanced Education and Manpower was seen to result in a lack of articulation between secondary and post-secondary institutions.

Some secondary schools suggested that there is a lack of course time recognition of high school technical and vocational courses by Saskatchewan institutes and universities, and that there are few extrinsic incentives for students to enrol in courses other than academic.

Other school and post-secondary people stated that programs are not consistent from school to school, and the Committee's examination of courses with the same designation across several schools revealed a wide variety of course content. The diversity in course content (i.e. breadth and depth), the variations in credit structures, the quality of equipment, the labeling of courses, and the goals of technical and vocational programs (i.e. pre-employment training versus general education) present a problem to post-secondary institutions, parents, students, and employers alike, in terms of their understanding and expectations of the courses and the competency level of the students.

Career guidance services are seen to require further attention. Teachers and counselors appear to be neither well experienced in technical and vocational counseling nor adequately informed about training available in technical institutes and the current labour market.

At present, there is no overall provincial policy for the articulation of course credits between high school, apprenticeship and post-secondary training. For the most part, articulation of business, technical, and vocational courses is negotiated on a program by program basis by the high schools and technical institutes, and trade time recognition is the exclusive domain of individual Trade Advisory Boards.

Articulation with Community Colleges. It was evident that a good working relationship exists between some boards of education and community colleges, through clear administrative and fiscal agreements, and that high school students and the adults in these communities were benefiting from this relationship. However, this relationship was not evident in all centres.

Interprovincial Articulation. Entrance requirements and credit recognition vary among post-secondary institutions across Canada. For example, Alberta technical institutes recognize Saskatchewan high school credits that Saskatchewan technical institutes do not. The Committee was advised, by some, that in a mobile society, curricula should be co-ordinated among the provinces.

Federal-Provincial Articulation. It was indicated in an historical review of technical-vocational education in Saskatchewan that federal economic development strategies often have not coincided with provincial educational planning. As a result, for example, comprehensive high schools are now confronted with problems in enrolment, facilities, operation and maintenance, equipment regeneration, and program responsiveness.

Long and short term manpower planning is necessary in our country. Co-operative effort from our provincial and federal governments in manpower planning and training is hoped for.

4. **Program Development.** Issues raised around curriculum fell into three areas: concern or confusion about responsibility for control and standards; comments on elements of the program structure and content; and frustration with program development procedures.

Comments to the Committee

Responsibility for Control and Standards. Post-secondary institutions are seen by some to dictate to the schools regarding programs to be established at the secondary level, as well as the credentials of high school technical instructors (i.e. journeyman).

Considerable program diversity has resulted from the development of local courses. In addition to local input and initiatives, provincial guidelines were called for to achieve some similarity in these programs. For example, it was observed that while there is reason to have many locally developed courses in the comprehensive high schools, the same course developed at 16 comprehensive high schools could result in 16 different programs.

The Committee was reminded that the Trade Advisory Boards are concerned with the number of available workers in the field. They are involved at the institute level regarding what should be taught, and they retain the responsibility for trade time recognition.

Saskatchewan Education was held generally responsible to set educational standards that are uniform throughout the province.

Program Structure and Content. Some wished to reduce the number of courses offered at Divisions III and IV, and concentrate on courses required to develop a solid general education.

Agriculture is a major industry in Saskatchewan, and some said that it is imperative that students receive an appreciation of agriculture, food, and farming prior to branching out into various careers.

There was a call for more and better trained career counselors who provide more specific guidance to students regarding their course choices. Continued improvement in career counseling in the school systems is needed. In particular, an awareness program was sought for the lower grades to acquaint students with the variety of occupational opportunities in the work place, and for the higher grades to provide the most up-to-date and accurate information on labour market trends from private and government sectors. The kindergarten to grade 12 curriculum should include information on non-traditional work and career opportunities for both sexes.

Curriculum Development Processes. Curriculum development has been slower than desired in several areas, with business education identified frequently. A mechanism is sought to maintain the philosophy and relevance of practical and applied arts courses. Structures were called for to ensure that school programs are able to respond more quickly to changing needs.

Closer links among the needs of industry, occupational training, and the educational curriculum are seen to be required.

5. **Program Policies.** Although issues regarding graduation requirements and alternative routes to grade 12 graduation are being dealt with in other projects, those issues were also raised to the Committee's attention. In addition, the need for clear policy was identified to the Committee in areas of course modularization, competency based instruction, equipment maintenance and replacement, and overall funding for comprehensive education.

Comments to the Committee

Credits. Some said that minimum graduation requirements should not change, in that most students already take more than the required 21 credits. Others wished to increase the number of credits from 21 to 24, because most students graduate with 24 to 27 credits, and many boards require a 24 credit minimum.

Student Certification. Special certification was sought for both gifted and low achieving students who are in alternative programs. However, some did note that special graduation certificates can be confusing to the public.

Modularization and Competency Based Instruction. The use of modularized, competency based programs at the school and institute levels was seen to be a way to ease the movement of students from secondary school to post-secondary institutions. However, concern was also raised regarding the effect of competency based instruction on high school offerings.

The modular approach to curriculum design was deemed by some to be desirable, as it can create flexibility for schools and it lends itself well to technical areas. Others noted that in curriculum development, the modular concept is positive and has advantages on a provincial level, but that content appears heavily weighted in theory while students want hands-on programs.

Some claims were made that while modularization is not popular with all teachers, it may be the answer for integration.

Equipment Concerns. Obsolescence was the major concern. Much equipment is dated, 20 years old or more, and it is difficult to purchase parts for repair.

In some schools with a low pupil-teacher ratio, trying to keep equipment updated is a difficult task, because equipment is extremely costly to maintain and replace; some boards do not have sufficient funds and cannot deal with retooling costs.

Funding. It was reported that some boards have no budget provisions for equipment maintenance and replacement; that any monies set aside have been used for operating expenses.

It was frequently stated that there cannot be many changes without additional funding, and this money is not likely to come from boards; therefore, more funding is expected from Saskatchewan Education, both to maintain existing programs and to initiate change.

Some said that the main expense is professional costs rather than equipment, and that the academic programs are supporting the existence of practical and applied arts programs through higher pupil-teacher ratios.

6. **Teacher Education and Teacher Supply.** A broad range of concerns was raised to the Committee regarding teacher preservice and inservice education. For example, the ongoing problem of teacher education and updating in the technologies was seen to be exacerbated by the core curriculum proposal that the practical and applied arts be a required area of study. While the core proposal seemed to have strong support, the Committee was reminded frequently that the core proposal will create even more demand for teacher preservice and inservice education services. Some concern was voiced about an aging teaching force in technical and business education and, in particular, among teachers with journeyman credentials. In general, strategies for recruitment and retention were deemed lacking.

Comments to the Committee

Education. The Committee learned that declining enrolments have created the situation in some schools where full time trade teaching is not required, and that generalists are required, not specialists. Some schools favour the non-journeyman who can teach a range of technical and academic courses.

Others had a preference to hire an expert in the trade first and then consider his or her academic education classes second, because journeyman teachers are seen to make things happen: they are known in the field (i.e. private sector), and they are needed if students are to receive any trade time recognition from the Trade Advisory Boards.

Supply. A projection of needs was sought so the universities can plan to provide an adequate teacher education program. A study was called for to determine the future shortfall of technical teachers and to ensure that qualified teachers are available in the future. For example, in 1984-85 the average age of journeyman teachers, who account for 15% of the 443 teachers in the technical, trades, and industrial arts areas, was 45.8 years, and the average age for business education teachers was 40.8 years. The average age of the total teaching force was 36.8 years.

For some, teacher supply was less problematic than in the past.

Recruitment and Retention. Use of incentives was proposed to attract and retain the best teachers. Some would like the government to introduce an incentive for trades people to receive academic training. It was noted that when comprehensive high schools were first established incentives were provided through federal and local bursaries; the teachers of that era are leaving and there is no incentive program to attract the young tradesmen into the teaching profession.

7. **Program Delivery.** Frustration was voiced to the Committee regarding what appears to be the absence of an integrated plan or set of strategies for the delivery of practical and applied arts programming and, more broadly, the delivery of a more comprehensive educational program to students in Saskatchewan. Those in comprehensive high schools expressed concern about isolation and lack of support systems. More generally, concerns were also raised about discrepancies between rural-urban and small-large school support.

Comments to the Committee

A good program was seen to include the provision of practical and applied arts courses, good counseling, modified and alternative programs, and the opportunity for academic excellence. However, declining enrolments, aging staff, and teacher education were all seen to work against increasing requirements for program flexibility.

In some communities there is competition between rural and urban centres. Larger schools are seen to threaten the smaller rural schools by attracting their students.

Opinions on distance education (eg. mobile labs, videotex) varied from favourable to not favourable.

There are opposing views on the usefulness of technical and vocational shared service arrangements between boards, including a regional high school concept.

Enrolment Patterns. Student enrolment was raised as an issue in several contexts. One was a concern about larger schools operating as magnets to draw students out of smaller community based schools and thereby threatening the identity and even the existence of the community. Another kind of concern was that of student course selection, with post-secondary entrance requirements seen as a major barrier to student selection of courses in practical and applied arts. A third was the continuing concern about the impact of overall declining enrolments on course availability.

Comments to the Committee

Comprehensive education was generally seen to provide an incentive for students to remain in school, although students were seen to be gravitating toward academic courses because of post-secondary course requirements for entrance.

Delivery in Small High Schools. Of the 334 publicly funded schools in the province offering Division IV courses during the 1984-85 school year, 276 were located in non-city communities. The average Division IV enrolment in these non-city schools was 61.4 students, and 174 had fewer than twenty students per grade. During the same year the average enrolment in the 32 city schools was 254, and the 16 comprehensive high schools had an average enrolment of 796 students.

Comments to the Committee

Major concerns expressed by teachers, parents, and students associated with small schools are the lack of facilities, limited course selection, declining enrolments, retention of students, teacher course loads, and an overall lack of equality of educational opportunity.

Accessibility of Comprehensive Education. For the Committee, the key issue regarding comprehensive education was to shift attention from the existing comprehensive high schools to all secondary school students in the province. The Committee pursued the concept of comprehensive education as the provision of student access to a variable range of courses beyond minimum graduation requirements. This range of courses is provided in response to student and community needs, .

Comments to the Committee

Section 13 of **The Saskatchewan Human Rights Code,** along with Section 15 of **The Charter of Rights and Freedoms,** places a responsibility on Saskatchewan Education, school boards, principals, and teachers to ensure that the educational opportunities available to all students are equal and free from discrimination.

The Declaration of the Rights of the Child as cited in **The Rights of Children** (Saskatchewan Association of Human Rights) states that all children should be given an education which will enable them on the basis of equal opportunity, to develop their abilities, individual judgment, and sense of moral responsibility, and to become useful members of society.

Section 144(1) of **The Education Act** states:

> Notwithstanding anything in **The Age of Majority Act,** and except as otherwise provided in this Act, every person between the ages of six and twenty-one years shall have the right to attend school in the division in which he or his parents or guardian are residents, and to receive instruction appropriate to his age and level of educational achievement. . . .

The Committee was told that all students should be encouraged to pursue and have access to a full range of occupations.

It was noted that students in small schools have just as much right to expect quality schooling as those in larger schools. Saskatchewan students should have the right to expect equality of educational opportunity.

Stage Two. This stage comprised the appointment of the Review Committee.

The members of the Committee had a threefold function: to act as a working committee by contributing information to the review process; to identify, review, refine, and confirm the trends, issues, and concerns presented; and to formulate recommendations for action.

Very early in this stage of the review, the Committee introduced three important changes in its terms of reference. First, in order to provide a context and framework for its recommendations, the Committee prepared a statement that set out the overall nature of the secondary school program. This endeavours to be a synthesis of the essential principles of **Directions, Program Policy Proposals,** and the experience of the Committee members regarding the capabilities of the educational system in Saskatchewan.

Second, it broadened its reference beyond technical and vocational education in order to be able to deal with the Core Curriculum Policy Committee's suggestion that secondary school graduation requirements include a practical and applied arts component. The Committee has addressed technical and vocational education, but has done so in the larger context of practical and applied arts.

The Committee's third preliminary task pertained to comprehensive high schools. The Committee undertook a review of the historical development of composite and comprehensive high schools in the province (see Appendix A), an examination of Division IV school enrolments (see Appendix B), and course utilization (see Appendix C) in the 334 publicly funded schools in Saskatchewan that offer secondary school courses of study. The Committee came to realize that, while there are matters that need attention in the operations of the existing comprehensive high schools in Saskatchewan, there was a more generic question that must be addressed regarding the nature and level of commitment of the government and people of Saskatchewan to the delivery of comprehensive education to all secondary school students.

The Committee, therefore, moved from an examination of existing comprehensive high schools, per se, to a careful discussion of means whereby all students might be afforded access to more comprehensive educational programming in Saskatchewan. The Committee directed much of its attention to clarifying that issue and providing advice to the Minister of Education regarding action that should be taken.

Stage Three. The third stage was the preparation of this report for the minister, detailing recommendations and an implementation plan.

Conclusion

The Committee reviewed a broad range of information about the secondary school as it presently exists in Saskatchewan. Not summarized in this report is an extensive body of knowledge about the ways in which secondary education is delivered elsewhere in Canada and the world.

In the end, however, the Committee did not find a structure elsewhere that would serve adequately the students of Saskatchewan. What the Committee has endeavoured to provide in the following pages is a model which is designed specifically for use in this province.

Chapter Two
Practical and Applied Arts in Secondary Schools

The Technical-Vocational Education/Comprehensive High Schools Review Committee endeavoured to build upon the work of the Curriculum and Instruction Review Committee and the Core Curriculum Policy Advisory Committee whenever possible in the course of its own deliberations. However, as the Committee progressed in its work, it recognized that some of the products of previous committees required clarification or enhancement if subsequent statements about the practical and applied arts were to be made clearly.

In this chapter, the Committee maps a path to renewal of the secondary school practical and applied arts. A directional statement on the purposes of the secondary school provides a framework for a definition of the practical and applied arts. The recommendations that comprise the balance of this chapter endeavour to deal with some of the specific problems that currently exist or that are likely to arise in this renewal of the practical and applied arts in the secondary schools of Saskatchewan.

Purposes of the Secondary School

Programming in secondary school, which comprises grades 10, 11, and 12, builds upon the general education provided in the elementary and middle years of school. The secondary school mix of required and elective subject areas and courses is designed to serve societal and individual needs, while recognizing diverse student interests and aptitudes. Within it, each student should be able to assemble a meaningful set of learning experiences.

Consistent with provincial policies, graduation requirements recognize that students vary in their ability to attain the provincial goals of education. In addition to required courses of studies, students are provided with a range of electives through a combination of school based delivery, distance education, and community resources.

The secondary school endeavours to assist students to achieve their full potential. To this end, it:

- helps students develop attitudes, knowledge, and skills
- prepares students for an independent future that includes well developed life skills, gainful employment, and access to post-secondary education
- enables students to understand their own culture and the culture of others in Canada and the world
- provides guidance to students regarding course selection and career choices.

Secondary school programs should encourage students of varying ability to attain the goals of education in a variety of ways through regular course options. The range of options that are made available is dependent upon attitudes of decision makers, student enrolment, facilities, equipment, and staff.

The Practical and Applied Arts in the Secondary School Program

The Committee considered the place of practical and applied arts in the context of the proposals put forward by the Core Curriculum Policy Advisory Committee, and it supports the principle that the practical and applied arts be included among the required areas of study in secondary school.

1. It is recommended that the Minister of Education adopt the following definition of the practical and applied arts.

   The practical and applied arts should include but not be restricted to the subjects within industrial arts, home economics, business education, and technical-vocational education. They are intended to acquaint students with day to day aspects of adult life, including employment, family responsibilities, and leisure. These courses are typically delivered in regular classrooms, laboratories, or shops, but sometimes may be delivered best by outside agencies or through the use of community and distance education resources.

Curriculum developers and teachers are encouraged to incorporate the following purposes into these courses:

- to enhance the quality of student life
- to provide a balance of theory and practice, that may vary from course to course
- to apply and enhance principles and concepts acquired in other courses
- to incorporate the common essential learnings
- to develop skills in the manipulation of equipment and materials
- to provide an opportunity to explore a variety of electives to assist in vocational and avocational choices
- to assist students to meet graduation requirements in various ways
- to provide specialized learnings to assist students to access post-secondary institutions and employment opportunities
- to create an attitude for lifelong learning.

Curriculum

The Committee formulated recommendations pertaining to curriculum development processes, the contents of curriculum, credits, and course numbering.

2. It is recommended that in order to graduate from secondary school, a student must earn a minimum of 24 credits, at least three of which must be earned in the practical and applied arts.

3. It is recommended that provincial policy and programs be developed to permit gifted and low achieving students to graduate by meeting requirements alternative to those set out for most students.

It is the Committee's hope that there will be a core curriculum which serves to integrate students' experiences within and between grades, which incorporates living skills within the core curriculum, and which has sufficient flexibility to meet the needs of all students.

In presenting these recommendations, which endorse a general education program at the high school level, the Committee wishes to emphasize the importance of providing for students with special needs, while recognizing that all students are entering an increasingly complex world. The Committee is confident that small high schools can deliver this increase in programming, particularly if supported by distance education resources. For most students, this should provide a program that appropriately balances competency in academic and applied and practical areas in preparation for the twenty-first century.

In recommending that each student earn at least three credits in the practical and applied arts, the Committee expects that the school will provide student access to practical and applied arts courses in more than one area. No school, therefore, should be satisfied to offer courses in only industrial arts or only business education, for example, but rather in two or more such areas. The Committee expects Saskatchewan Education to develop guidelines that clearly differentiate between courses in the practical and applied arts and courses in the other required areas of study, and to create a mechanism for use by schools in setting up or enhancing practical and applied arts course offerings.

4. It is recommended that a Practical and Applied Arts Standards Committee be created to advise Saskatchewan Education on the establishment, implementation, and monitoring of standards for courses, services, facilities, and equipment particular to practical and applied arts programming in Saskatchewan, with representation from large and small schools, post-secondary institutions, and the provincial government.

5. It is recommended that Saskatchewan Education establish clear policy and guidelines to be followed when establishing locally developed and modified courses, including requirements for review processes.

6. It is recommended that the numbering system for the secondary school course list be revised and condensed by Saskatchewan Education, with obsolete course numbers rendered inaccessible for current registrations, and with practical and applied arts courses clearly designated.

Concern exists in schools, post-secondary institutions, and the workplace over the degree of variation that there is in course content from school to school, and the difficulties that result in linkages among those three sectors.

The Committee had no difficulty in gathering examples of substantial unauthorized deviations from provincially developed courses of studies in various curriculum areas. Some of these deviations were modifications of current courses, while others were the continuation of "Bulletin D" (1957) and other outdated courses no longer sanctioned by the department. While the Committee was careful not to override the supervisory role of the director or superintendent of education and the school principal in regulating course offerings, it does reiterate the importance of schools' adherence to provincially approved courses or course modifications. Recommendation four is designed to bring the department and the board into a closer partnership in the regulation of course offerings, in order that there be more consistency in course content across the province.

To alleviate the problems, only those courses presently authorized should be listed on forms distributed to school divisions, and these courses should be carefully monitored to ensure congruence with the guides. A two or three year phase-out phase-in provision should be established and announced to school divisions, together with a rationale for changes. For those schools requesting half credit exploration courses at the grade 10 level, and multi-credit courses at the grade 11 and 12 levels, it should be pointed out that the option is available, but only through the formal route of locally developed submissions and subsequent approvals.

7. The Committee endorses the process of curriculum development set out in **Directions,** and it recommends that provincial curriculum guides be maintained through revision, updating, publication, and implementation on an ongoing basis, with objectives, suggested teaching strategies, and criteria for evaluation and monitoring set out clearly.

8. It is recommended that Saskatchewan Education retain and expand the use of consultants in order to meet the curriculum development needs in each of the practical and applied arts areas.

The Committee was of the view that throughout the school program, departmentally developed courses should be the norm, and that, if those courses are to be attractive to teachers and students, they must be current, accurate, and teachable. The Committee advocates that guides be modular and be designed to set out the scope and sequence of the material to be learned, to assist teachers in preparing instructional strategies, and to facilitate administrators' and teachers' monitoring and evaluation of student performance and program appropriateness.

In the practical and applied arts there is a need for courses that can be assembled in a variety of ways for the variously sized schools, if all students are to have access to at least three appropriate credits in the area. In order to gain maximum flexibility in the delivery of courses, particularly for the benefit of students in smaller schools, the Committee considered the use of competency based modules, where possible, as the building blocks for practical and applied arts programming. A competency based module of study has standards of student performance clearly stated as well as a reporting procedure that clearly communicates the competencies of the student to parents, employers, and post-secondary officials. This could allow each school to offer its preferred mix of program breadth and depth.

9. It is recommended that, where appropriate, Saskatchewan Education develop practical and applied arts courses as competency based modules.

10. It is recommended that, wherever possible, work experience be available to students in the senior grades to better prepare them for their future.

11. It is recommended that Saskatchewan Education establish means whereby representatives of business, labour, industry, and agriculture can advise on course contents.

Guidance and Counseling

The Committee identified four key areas of concern in relation to guidance and counseling: in-school counseling of students and parents regarding the assembling of the best possible program of studies for the student; career counseling for the student related to post-secondary options, including provision of up-to-date diagnostic and information tools; an ongoing career education program for all students; and personal counseling services. The Committee was concerned that, despite many calls for improved guidance and counseling there is still a shortage of adequate guidance and counseling services in schools.

12. It is recommended that career guidance and counseling services be provided to all students, including those in elementary and middle years. Boards of education should investigate all possible options to ensure provision of appropriate services.

13. It is recommended that students be provided experience in career planning and have access to career information, including information on the labour markets, post-secondary training opportunities and entrance requirements, and self-employment, utilizing federal and other sources of information.

The Committee wished to acknowledge the importance of guidance and counseling services in helping all students to develop an awareness of career opportunities and make informed occupational choices.

These services and appropriate resource materials can assist individuals to deal with the issues of stereotyping, non-traditional occupational choices, changing technology, and shifting employment patterns.

While the Committee supports the employment of guidance counselors, it also recognizes that guidance is a responsibility of all teachers. In this regard, it suggests that the effective implementation of a guidance and career education program requires that training opportunities be accessible to all teachers, through a variety of means, and, as appropriate, supported by provincial government bursaries.

Linkages

In its examination of linkages between secondary schools, post-secondary institutions and the workplace, the Committee was struck by the confusion and uncertainty that exists in the practical and applied arts areas. While articulation can be improved somewhat through implementation of the recommendations on curriculum and credits, the following recommendations focus on better communications channels and mechanisms for problem solving, within an overall framework for policy on linkages.

14. The Committee supports the establishment of an interdepartmental steering committee to review and regulate articulation between the kindergarten to grade 12 system, post-secondary institutions, and the workplace, with membership from Saskatchewan Advanced Education and Manpower and Saskatchewan Education. It is recommended that this steering committee's first task be to draft a provincial policy on articulation of programs at the secondary and post-secondary levels that provides for

    a) clearer definitions of exit and entry requirements,
    b) utilization of both in-school and community based resources and equipment in practical and applied arts courses,
    c) opportunity for students to gain credit by demonstrating their competency when entering pre-employment training, and
    d) opportunity for students to gain trade time recognition for time spent in trade oriented programs in high schools.

15. It is recommended that communications be made an ongoing process at the local level among institutes, community colleges, and schools, for treatment of such matters as curriculum, counseling, and use of facilities.

    The Committee considers matters of linkage at both the provincial and institutional levels to be of sufficient importance to warrant creation of special purpose permanent articulation machinery. It seems likely that without such provision the student's transition from high school will not be improved and current inefficiencies will continue. It is the Committee's hope that the simultaneous treatment of linkage concerns at both secondary and post-secondary levels will speed the implementation of solutions.

Facilities and Equipment

Although the Committee recognizes that overall planning for facilities is primarily the responsibility of the boards of education, it does wish to draw attention to the problem of obsolete and worn out equipment in use in many practical and applied arts programs. This matter is not raised with any suggestion that all industrial arts shops, for example, be equipped at a level to support pre-employment training courses, but rather that they be equipped with safe and efficient equipment that permits at least the minimum objectives of the course to be taught.

16. It is recommended that facilities and equipment in schools be upgraded in order to improve the overall quality of practical and applied arts programming, within standards set out by the Practical and Applied Arts Standards Committee.

17. It is recommended that the established school health and safety standards be published and distributed by Saskatchewan Education, accompanied by an implementation and maintenance plan.

18. It is recommended that boards of education set up and implement policy for school safety and ongoing equipment repair and replacement in practical and applied arts courses.

The Committee recognizes that boards of education have authority to set aside funds for these purposes, but that not all boards are exercising this authority.

19. It is recommended that Saskatchewan Education extend its consultation to school divisions by providing and maintaining a list of recommended equipment specifications and by advising schools on future trends.

Teacher Education and Recruitment

In general, the Committee recognizes a need for more vigorous recruitment into preservice teacher education in the practical and applied arts. It also seeks the provision of co-ordinated province-wide inservice education, not only in response to urgent existing needs, but also in anticipation of the proposed enhanced role for the practical and applied arts within the core curriculum.

20. It is recommended that boards of education be urged to recognize the particular inservice education needs of practical and applied arts teachers, including industry oriented programs.

21. It is recommended that the universities continue to offer summer classes in the teaching of practical and applied arts, and that these courses be open to all certificated and prospective teachers.

22. It is recommended that the universities be encouraged to establish, where necessary, and maintain all practical and applied arts areas as major and minor fields of study.

23. It is recommended that greater emphasis be given by Saskatchewan Education and boards of education to the education and retention of practical and applied arts teachers.

The Committee looks to the universities for preservice education, and it supports the work of the Saskatchewan Teachers' Federation, the Saskatchewan School Trustees Association, the League of Educational Administrators, Directors and Superintendents, the universities, and Saskatchewan Education in establishing a professional development centre under Federation administration. However, even with the establishment of the centre, the Committee looks to the department for curriculum implementation in practical and applied arts courses.

The Committee's priorities are the preparation of multi-disciplinary generalist teachers and generalists within practical and applied arts areas, rather than specialists in specific subjects. It urges the universities to encourage students in the secondary education program to earn a major and two minors.

Chapter Three
Delivery of Comprehensive Education

When the Technical-Vocational Education/Comprehensive High Schools Review Committee was established, one of the requests made by the Minister of Education was that it clarify the role and philosophy of comprehensive high schools in Saskatchewan.

The Committee first approached this task by examining the history and current operations of the comprehensive high schools that were built in Saskatchewan utilizing federal funding made available under **The Technical and Training Assistance Act,** 1960.

These comprehensive high schools were designed to offer a broad range of academic, practical and applied, and pre-employment training courses to high school students in their respective catchment areas. To a varying degree, each continues to perform those functions, and each continues to receive an incremental grant to assist with the operating costs of the school plant. The Committee recognized that it is difficult to differentiate operationally between some of the smaller comprehensive high schools and some other larger schools in Saskatchewan, when such factors as enrolment, breadth and depth of program offered, governance, and attendance area are considered. However, these comprehensive high schools, as a group, certainly deliver a substantially more comprehensive range of courses than the other schools in the province.

Ideally, the Committee would like to place within easy reach of all students the level of programming that is provided by the largest and most comprehensive of our schools, in order that all youth in our province have access to courses that best suit their individual abilities, needs, and interests. However, the Committee recognized that the resources required for such an ideal delivery system are not readily available. The Committee then turned its attention to those mechanisms which need to be in place in order to provide improved access to comprehensive education by all students.

The Committee also gave attention to the idea of comprehensive education as it relates to current proposals for a core curriculum. The Core Curriculum Policy Advisory Committee has proposed that the secondary school offers three categories of programming: required courses of study, such as Science 10; required areas of study, such as science in grades 11 and 12, within which the student might be able to choose between physics, chemistry, biology, and other courses in the science area; and elective courses, which the student may select freely, circumscribed only by the range of courses available within the particular school. Clearly, each secondary school must deliver a sufficient range of courses to enable its students to meet provincial graduation requirements, which are proposed to be 24 credits.

From this perspective, the Committee found it possible to consider the delivery of comprehensive education to be on a continuum, with each school offering some amount of programming beyond the basic graduation requirement; in its simplest terms, when a school offers additional programming through any combination of in-school, community and distance education resources, it is delivering a level of comprehensive education. A school's capacity to deliver a comprehensive education is governed by a mix of several factors, including geography, enrolment, community definition of programming needs, and community willingness to provide resource support for the school.

24. It is recommended that the Minister of Education support the provision of comprehensive education to all students in Saskatchewan.

Funding

The Committee acknowledges and respects the commitment of many smaller communities to operate a secondary school within the community, however small that school's enrolment might be. It also recognizes that many communities wish to see some or all of their youth have access to a broader range of courses than can be provided locally. For all students, however, the Committee wishes to see access to more than minimum graduation requirements in the academic and the practical and applied arts areas, and it sees the responsibility for such provision of comprehensive education to reside with both provincial and local authorities.

25. It is recommended that Saskatchewan Education find means to provide at least its current level of incremental comprehensive education funding for all Division IV students in Saskatchewan's publicly funded schools.

In making this recommendation, the Committee is seeking to continue to support the efforts of the existing comprehensive high schools. In addition, the Committee wishes to support and enhance the efforts of all boards of education to deliver comprehensive education. At the present time, incremental funding for comprehensive education is provided to 16 schools that serve approximately 28 per cent of the provincial high school population, and the Committee wishes to see that support made universal.

The Committee does not, however, wish to see such funding simply rolled into the Division IV basic per pupil rate. It is the Committee's view that if the identity of the increment is retained, it will serve to draw attention to the responsibility of all boards of education to provide student access to comprehensive education.

The Committee does not make this recommendation in anticipation of exclusively new money being used, although use might be made of the Educational Development Fund for the one-time costs of upgrading existing facilities and equipment in shops, laboratories, classrooms, and resource centres. Rather, the Committee encourages the department to look beyond that fund and to look outside of current provincial funding for comprehensive high schools in securing the future of comprehensive education in Saskatchewan. For example, there is a substantial appropriation of provincial money for incremental grants to schools in Saskatchewan. The Committee suggests that the department review those components of school funding and that it give careful attention to the recommendations of the Local Government Finance Commission regarding funding for education.

Distance Education

The Committee recognizes that a variety of ways will be used by boards of education to improve delivery. For example, in some cases seats may be bought in nearby larger schools for a selected group of students, while in other school divisions the program in the home school may be enhanced through some combination of in-school and distance education means.

26. It is recommended that Saskatchewan Education initiate a consultation process aimed at providing a variety of distance education support services to schools in order to improve comprehensive programming, and that Saskatchewan Education act quickly in co-operation with boards of education to conduct pilot and developmental projects in distance education.

27. It is recommended that Saskatchewan Education, in collaboration with other government departments and the universities, initiate, expand, and develop quality distance education services, including the establishment of Saskatchewan Communications Advanced Network.

28. It is recommended that emphasis in distance education be placed on the development and implementation of quality instructional materials, teacher readiness to use such instruction, and the delivery of distance education by utilizing the resources available at the interprovincial, provincial, and regional levels.

In a regional context, distance education might originate from a high school, and, depending on the needs that are expressed by potential users of services, could include mobile laboratories, shops or instructional resource materials; instruction through electronic means such as teleconferencing; and teacher centres and professional development assistance. It is most likely that the larger high schools would be the primary providers of these distance education services. However, the Committee recognized that small high schools can also provide specialized services to other schools.

Other forms of distance education services can originate provincially or from sources outside the province. In this regard, the Committee encourages the provincial government to act on the creation of the Saskatchewan Communications Advanced Network (SCAN). Likewise, the Committee sees promise in the changing operations of the Correspondence School and in work that the department has underway in computer based communications.

Overall, the Committee recognized that money will be required to finance distance education initiatives, but it is confident that funding can be found through the review of spending priorities called for earlier in this chapter.

Support Systems

The Committee recognized that if support for comprehensive education were provided both through a change in the nature of funding and through the enhancement of program delivery using a variety of distance education initiatives, significant improvements would be likely. However, it is the Committee's hope that ongoing policy making, consultative, and monitoring structures will be put in place to sustain this commitment to comprehensive education.

29. It is recommended that Saskatchewan Education and boards of education give attention to the special needs in comprehensive education, including the formulation of policy for the replacement and upgrading of equipment, and the establishment of an information network related to the maintenance and replacement of equipment and facilities.

30. It is recommended that Saskatchewan Education, in co-operation with Saskatchewan Advanced Education and Manpower, the Saskatchewan Teachers' Federation, and the Saskatchewan School Trustees Association, initiate a biannual comprehensive education conference as a mechanism for supporting the delivery of comprehensive education in Saskatchewan.

31. It is recommended that Saskatchewan Education, the Saskatchewan School Trustees Association, and the Saskatchewan Teachers' Federation establish means for boards of education to monitor systematically the delivery of comprehensive education in Saskatchewan, with attention to such elements as program breadth and depth, student access to and enrolment in courses, student retention, equipment, student and staff safety, and efficiency of operations.

Lifelong Learning

Education is a lifelong process and the Committee believes that it is the responsibility of educators at all levels to co-operate and plan together to respond to the number of adults wishing to return to school for credit classes. These learners usually do not wish to return to the regular school environment, but want to be in an adult environment where they can receive help and, in many cases, attend classes on a part time basis. In particular, the arrangements for adult education that are in place in some of our existing regional and comprehensive high schools can serve as a model for other centres in Saskatchewan.

32. It is recommended that Saskatchewan Education, Saskatchewan Advanced Education and Manpower, and the affected community colleges and boards of education co-operate to provide adults with appropriate access to secondary school credits, academic and life skills upgrading, assistance in career planning, and updating and upgrading job related skills.

In making this recommendation, it is the Committee's hope that, through this means of improving services for adult learners, some economies of scale might be achieved in capitalizing and staffing the programs and services that adults need. This can include some sharing of instructors, facilities and equipment; and extension of guidance and career planning services.

Chapter Four
Implementation of the Recommendations

In presenting these 32 recommendations for change, the Technical-Vocational Education/Comprehensive High Schools Review Committee is very aware that it is proposing some fundamental changes in the nature and funding of education in Saskatchewan. The Committee is also reaffirming, deliberately, principles that traditionally characterized education in Saskatchewan.

The Committee has put forward its recommendations with a collective concern about the well-being of the youth in this province. The Committee's deliberations were remarkably free of organizational stakeholding, and its recommendations reflect its commitment to providing excellent educational opportunities to all of our youth.

The Committee has reconfirmed the important role of the provincial government in equalizing educational opportunity throughout this province, through funding, curriculum development, and the definition of standards of excellence.

The Committee also recognizes that the school community has been a powerful force for educational improvement in this province, and the role of community based decision making has been emphasized in this report. The Committee believes that, within the provincial framework and the greater societal context, boards of education must continue to act on behalf of and in response to local needs and wishes. Local fiscal contribution and accountability, in the Committee's view, are essential elements of the shared decision making that characterizes this province.

Finally, the Committee reiterates the principles found in **Directions,** in the statement of provincial goals of education, and in other significant planning documents in our history that education is a shared responsibility and educational change is a planned collaborative process.

A Plan for Action

The Committee has endeavoured to outline the kinds of leadership and supporting roles that each participating organization can play in transforming these recommendations into action.

Distribution of the Report. Although the Committee has used a variety of research and consultation means to inform its work, it encourages the Minister of Education to distribute this report broadly in order that those who are interested may become aware of its recommendations and implications. In particular, the report should be made available to post-secondary institutions; boards of education and the Saskatchewan School Trustees Association; secondary school teachers, administrators, and the Saskatchewan Teachers' Federation; members of the League of Educational Administrators, Directors and Superintendents; representatives of business, industry, labour, and agriculture, particularly those who attended the Articulation Forum in May 1986; officials of affected provincial and federal departments; and the public at large.

Time Frame for Action. Each of the organizations represented on the Committee has a role to fill in the implementation of this report, and the Committee has formulated a time frame for action that also sets out possible leadership and support responsibilities that could be assumed by each member organization.

Taking Action. Any change creates some anxiety, and the changes that are called for in this report will not be exceptions. The Committee is confident, however, that its recommendations can be implemented and that there is a general will in this province to see such change introduced. It also believes that the most difficult moment for the Minister of Education, and for the other decision makers who have a role to fill, is the moment of initiating action. The decision by each member of the Committee to support each of the recommendations in this report was just such a moment. Now, collectively and confidently, the Committee urges each person who reads this report to deliberate on it, discuss its contents, and progress beyond discussion to taking action toward enhancing secondary education in Saskatchewan.

Sustaining Change

The recommendations put forward in this report contain expectations for support and leadership from many different organizations. The Committee expects action, and, in order that these activities be co-ordinated and sustained, sees need for some means of monitoring progress.

The Committee has been impressed by the role played by the Directions Co-ordinating Council in the implementation of **Directions.** This Council, which has senior membership from the Saskatchewan Teachers' Federation, the Saskatchewan School Trustees Association, the League of Educational Administrators, Directors and Superintendents, the universities, and Saskatchewan Education, has provided a forum for interorganizational sharing of information regarding the implementation of recommendations made in **Directions,** and it has enabled these organizations to co-operate in creating specific strategies for change.

The Committee suggests that the Minister of Education consider modifying the terms of reference and the membership of the Directions Co-ordinating Council, in order that the Council be able to take on this same sustaining role for the recommendations made in this report.

A Time Frame for Action

Recommendations		Responsibility of	Starting Date for Action			
			April '87	Sept. '87	Jan. '88	April '88
Practical and Applied Arts in the Secondary School Program						
1.	Definition of Practical and Applied Arts	**Minister of Education**	■			
Curriculum						
2.	Graduation Requirements	**Saskatchewan Education**	■			
3.	Alternate Program Policy	**Saskatchewan Education**			■	
4.	Standards Committee	**Saskatchewan Education** Saskatchewan Advanced Education and Manpower Saskatchewan School Trustees Association Saskatchewan Teachers' Federation			■	
5.	Modified and Locally Developed Courses	**Saskatchewan Education** School Division Boards		■		
6.	Secondary School Course Numbering	**Saskatchewan Education**	■			
7.	Provincial Curriculum Guides	**Saskatchewan Education** Curriculum Advisory Committees	■			
8.	Practical and Applied Arts Consultants	**Saskatchewan Education**		■		
9.	Competency Based Modules	**Saskatchewan Education** Curriculum Advisory Committees		■		
10.	Work Experience	**School Division Boards** Saskatchewan Education Saskatchewan Advanced Education and Manpower Business, Industry, and Labour Federal Government		■		
11.	Public Involvement	**Saskatchewan Education** Curriculum Advisory Committees Business, Industry, and Labour	■			

Note: Bold print indicates leadership role

Recommendations		Responsibilities of	Starting Date for Action			
			April '87	Sept. '87	Jan. '88	April '88
Guidance and Counseling						
12.	Student Guidance and Counseling	**School Division Boards** Saskatchewan Education Saskatchewan Advanced Education and Manpower Universities Community College Boards Saskatchewan Teachers' Federation		■		
13.	Career Information and Planning	**Saskatchewan Education** **Saskatchewan Advanced Education and Manpower** **School Division Boards** Community College Boards Saskatchewan Teachers' Federation Business, Industry, and Labour Saskatchewan Women's Secretariat Federal Government		■		
Linkages						
14.	Articulation Steering Committee	**Saskatchewan Education** **Saskatchewan Advanced Education and Manpower** Universities Community College Boards Saskatchewan Teachers' Federation Trade Advisory Boards	■			
15.	Communication at the Local Level	**Saskatchewan Advanced Education and Manpower** **School Division Boards** **Community College Boards** Saskatchewan Education Saskatchewan School Trustees Association Saskatchewan Teachers' Federation Saskatchewan Community Colleges Trustees Association			■	
Facilities and Equipment						
16.	Equipment in Schools	**School Division Boards** Saskatchewan Education	■			
17.	Health and Safety Standards	**Saskatchewan Education** School Division Boards	■			
18.	School Safety, Equipment Repair and Replacement	**School Division Boards** Saskatchewan School Trustees Association		■		

Recommendations		Responsibilities of	Starting Date for Action			
			April '87	Sept. '87	Jan. '88	April '88
19.	Consultation Process	**Saskatchewan Education** Saskatchewan Advanced Education and Manpower School Division Boards Business, Industry, and Labour		■		
Teacher Education and Recruitment						
20.	Teacher Inservice Education	**School Division Boards** Universities League of Educational Administrators, Directors and Superintendents Saskatchewan Teachers' Federation	■			
21.	Access to Summer Courses	**Universities**	■			
22.	Teacher Credentials	**Universities**	■			
23.	Education and Retention of Teachers	**School Division Boards** **Saskatchewan Education** Universities Saskatchewan School Trustees Association League of Educational Administrators, Directors and Superintendents Saskatchewan Teachers' Federation	■			
Delivery of Comprehensive Education						
24.	Comprehensive Education	**Minister of Education**	■			
Funding						
25.	Comprehensive Education Funding	**Saskatchewan Education** School Division Boards Saskatchewan School Trustees Association				■
Distance Education						
26.	Consultation	**Saskatchewan Education** School Division Boards		■		
27.	Services	**Saskatchewan Education** Saskatchewan Advanced Education and Manpower Universities Saskatchewan School Trustees Association School Division Boards Community College Boards Saskatchewan Teachers' Federation		■		

Recommendations	Responsibilities of	Starting Date for Action			
		April '87	Sept. '87	Jan. '88	April '88
28. Scope of Distance Education	**Saskatchewan Education** Saskatchewan Advanced Education and Manpower Universities Saskatchewan School Trustees Association School Division Boards Community College Boards Saskatchewan Teachers' Federation Curriculum Advisory Committees		■		
Support Systems					
29. Special Needs of Comprehensive Education	**Saskatchewan Education** Saskatchewan School Trustees Association School Division Boards Saskatchewan Teachers' Federation	■			
30. Comprehensive Education Conference	**Saskatchewan Education** **Saskatchewan Advanced Education and Manpower** **Saskatchewan School Trustees Association** **Saskatchewan Teachers' Federation**	■			
31. Systematic Monitoring of the Delivery of Comprehensive Education	**Saskatchewan Education** Saskatchewan School Trustees Association School Division Boards Saskatchewan Teachers' Federation		■		
Lifelong Learning					
32. Adult Education	**Saskatchewan Advanced Education and Manpower** Saskatchewan Education Community College Boards School Division Boards	■			

Appendix A

An Historical Overview of the Development of Composite and Comprehensive High Schools in Saskatchewan

Historical

The introduction of more complex technology, data processing, and other industrial practices following the Second World War influenced widespread changes in national employment patterns, creating a demand for more education and training at all levels. The result was two waves of expansion of technical and vocational facilities, which were initiated in 1945 and 1960. Canada needed more skilled technicians to keep pace with the accelerating technological and occupational changes which were occurring. During the 1940's and 1950's, Canada met her needs largely through importing skilled labour from Europe. However, the importation of skilled labour began to decline during the 1950's. Extended training for Canadian-born young was needed (Canada Year Book, 1963-64; Canada Year Book, 1978-79; Stamp, 1972).

Composite High Schools. Substantial grants for capital expenditures for the building and equipment of technical facilities were provided to Saskatchewan schools through the federal government's introduction of **The Vocational Schools Assistance Agreement** (1945). This agreement, under the authority of **The War Measures Act** (1914), made federal financial assistance available to school jurisdictions in the province. The agreement covered a twelve year period and provided financial assistance for vocational training at the secondary school level but not exclusively in secondary schools. University courses, manual training, and other general or pre-vocational courses were excluded, but post-secondary technical education courses were considered shareable. In most cases up to 80% of the cost of each approved project was covered by grants under this scheme. Grants were on a 50-50 federal-provincial basis, with 25% of the federal grant allotment earmarked for equipment. Through the federal financial assistance received from this 1945 agreement a type of school emerged in the province which offered both vocational as well as academic courses. These schools became known as composite high schools (Saskatchewan Education, 1948; Jameson, 1955; Young & Machinski, 1972).

The development of composite schools was also made possible by the grouping of school districts into larger units under **The Larger School Units Act** (1944). Under the administration of a single board, a greater centralization of educational facilities resulted. Through this Act, the enrolments at the high school level in towns and villages increased to such an extent that it became feasible to extend subject offerings to include business education, shop work, and home economics. Town and rural school boards, separately or in co-operation, began the extension and erection of buildings (Jameson, 1955; Nicks & Gathercole, 1969).

Composite high schools represented a distinct change in the philosophy of secondary education. Until the late 1940's and early 1950's most high schools in the province operated as academic schools with technical subjects offered only as options to the university and normal school courses. Such schools were not considered to be performing the functions of composite high schools. The concept of the composite high school was based upon the belief that it is the democratic right of students to have equal opportunity while in school for preparation for life beyond school, whether it be for entering the professions, the home, the farm, business, or skilled trades. Composite high schools were not to be regarded as vocational schools; they were not designed or equipped for offering many technical courses on a full trade level or of trade standards. However, composite high schools were viewed as being able to lay broad, solid foundations in the various technical fields, making the transition from school to the work place more positive and easier. When a high school made available to its student population a well-balanced academic and technical program blended to meet students' needs, it was designated as a composite high school (Saskatchewan Education, 1957).

The introduction of composite high schools in Saskatchewan created some concerns and curricular problems that even to this day have not been completely or satisfactorily resolved. Some of the primary concerns and problems identified during the transition period from 1946 to 1948 are just as relevant today as they were then, namely,

- courses were suitable to technical high schools but had limitations for the general shop of a composite school
- standards in each subject area for each grade were not established
- the depth of teaching for each subject was not clear
- there was difficulty finding desirable texts
- the shop curriculum was not followed closely
- when students transferred to another school, they found there was little program continuity
- a measure of uniformity in shop programs was needed
- there was no guide to differentiate between the time for shop lectures and shop classes

- no limits were set on the number of students to be in the shop at one time
- teachers were confronted with a heavy load of academic work in addition to shop work (Jameson, 1955).

Comprehensive High Schools. The Technical Vocational Training Assistance Act of 1960 was "the greatest stimulus to vocationally oriented education in the nation's history and also the greatest financial commitment to education undertaken by Ottawa" (Stamp, 1972, p. 259). This Act grouped all federal-provincial activities in the vocational education field, and under it the federal government agreed to reimburse the provincial governments 75% of their expenditures for construction, purchase, or alteration of approved facilities for technical or vocational training and for equipping of the same. By 1972, there were three technical schools, two technical institutes, three vocational centres, and 16 comprehensive high schools in Saskatchewan (Stamp, 1972; Young & Machinski, 1972).

It was also during this time, in North America, that the comprehensive high school model as set out by James Conant was receiving wide support and publicity. This model became the basis of comprehensive high schools in Saskatchewan.

Comprehensive high school programs were designed to meet the needs and interests of all high school students by making available a broad curriculum offering. The comprehensive high schools were to provide, under one roof, educational programs for all high school students. It was the responsibility of these schools to provide a common core for all students and, as well, provide a wide range of electives that would ensure the optimum development of every high school student. These schools were also intended to provide the education necessary to equip the young person in transition from school to employment, to post-secondary vocational preparation, and to the important role as a citizen (Nicks & Gathercole, 1969).

A comprehensive high school was intended to provide a general core curriculum enriched with a broad range of academic and non-academic electives which students can access through individualized timetables. For such a school to be able to function with a reasonable degree of efficiency, Conant's guideline that it should have a graduating class of at least 100 students seems as appropriate now as it was when he formulated it in 1959.

There are currently 16 schools in the province recognized by the provincial government as comprehensive high schools. Recognition of these schools is based, not on the type of instructional programs offered, but as those schools which were constructed under the joint federal-provincial agreement of 1960 and/or receive special operating grant recognition. The last federal-Saskatchewan agreement, under the 1960 Act, was ratified in 1971.

The administration of comprehensive high schools falls under one of two categories: single school division board management, whereby operation is assumed under one school division board; and joint board management, which consists of representation from those school division boards which have students attending the neighbouring comprehensive high school. It should be noted that joint boards of management vary in terms of their responsibilities and the manner in which representation on the board is based.

Regardless of the administrative operation, the per pupil recognition in the grant calculation is the same at comprehensive high schools as for other Division IV pupils. However, there is, in addition to this per pupil recognition, an incremental recognition which is based on the notion that these schools are more costly to operate and maintain. With the exception of the Saskatoon and Regina school systems, this incremental recognition is based on the number of students enrolled at the comprehensive high school. For those 12 comprehensive high schools, outside the Regina and Saskatoon public and separate systems, the recognition for each comprehensive high school is calculated by multiplying the number of Division IV students enrolled by the recognized incremental rate. The incremental recognition for the Saskatoon and Regina systems is calculated on the total number of Division IV students attending the 12 comprehensive high schools over the total number of Division IV students in the province, excluding the number of Division IV students in the two city public and separate systems. This ratio is then multiplied by the number of Division IV students enrolled in the respective Regina and Saskatoon separate and public school divisions. This number of Division IV students recognized is then multiplied by the incremental rate to derive the incremental grant recognition for each of these school divisions.

For example:

a) $\frac{\text{Students enrolled in comprehensive high schools outside of Regina and Saskatoon}}{\text{Total Division IV outside of Regina and Saskatoon}} = \frac{7,672}{27,362} = 28.04\%$

b) School System A: 4,769 Division IV students x 0.2804 = 1,337

c) Incremental grant recognition: 1,337 X $249 (incremental rate) = $332,913

Conclusion

The major difference between the post-war decade and the decade of the 1960's was a matter of degree. A greater degree of technical and vocational emphasis during the 1960's was due largely to a much more extensive fiscal commitment by federal-provincial officials and by powerful economic and industrial groups (Stamp, 1972).

In Saskatchewan, the introduction of **The Larger School Units Act** and the implementation of the federal-provincial secondary education agreements over the years have had a definite and direct impact on the direction and nature of secondary schooling. In light of these initiatives, comprehensive high schools could be viewed as the natural extension of the province's composite high schools. However, with the introduction of comprehensive high schools, the composite high schools were not attended to and brought along in this evolutionary process. Furthermore, **The Adult Occupational Training Act** of 1970 shifted federal support for vocational high school programs to the development of post-high school adult training or retraining programs (Gayfer, 1978). This change in emphasis by the federal government and the lack of maintenance of the role and purpose of comprehensive high schools have contributed to the present situation.

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Appendix B

Division IV School Enrolments

(1984-85)

Provincial Perspectives

The following maps of the province provide a provincial overview of the enrolment density at the Division IV level and the enrolment density of students attending Divisions I, II, and III.

Division IV Enrolment. The distribution of grade 10 to 12 enrolment in school divisions was divided into four equal quarters. The areas of highest enrolment are completely coloured in while those of lowest enrolment are left blank. Areas of highest enrolment tend to be located near cities. Lowest enrolment occurs in the northern part of Saskatchewan and in the southwest.

Figure 1. Enrolment density in Division IV (1984-85).

- High: 455 to 7862 students
- Medium High: 303 to 444 students
- Medium Low: 219 to 286 students
- Low: 27 to 218 students

NOTE: For clarity partial maps of Saskatchewan used.

Divisions I, II, and III. The distribution of kindergarten to grade 9 enrolment in school divisions was divided into four equal quarters. The areas of highest enrolment are completely coloured in while those of lowest enrolment are left blank. Areas of highest enrolment tend to be located near cities. Lowest enrolment occurs in the northern part of Saskatchewan and in the southwest.

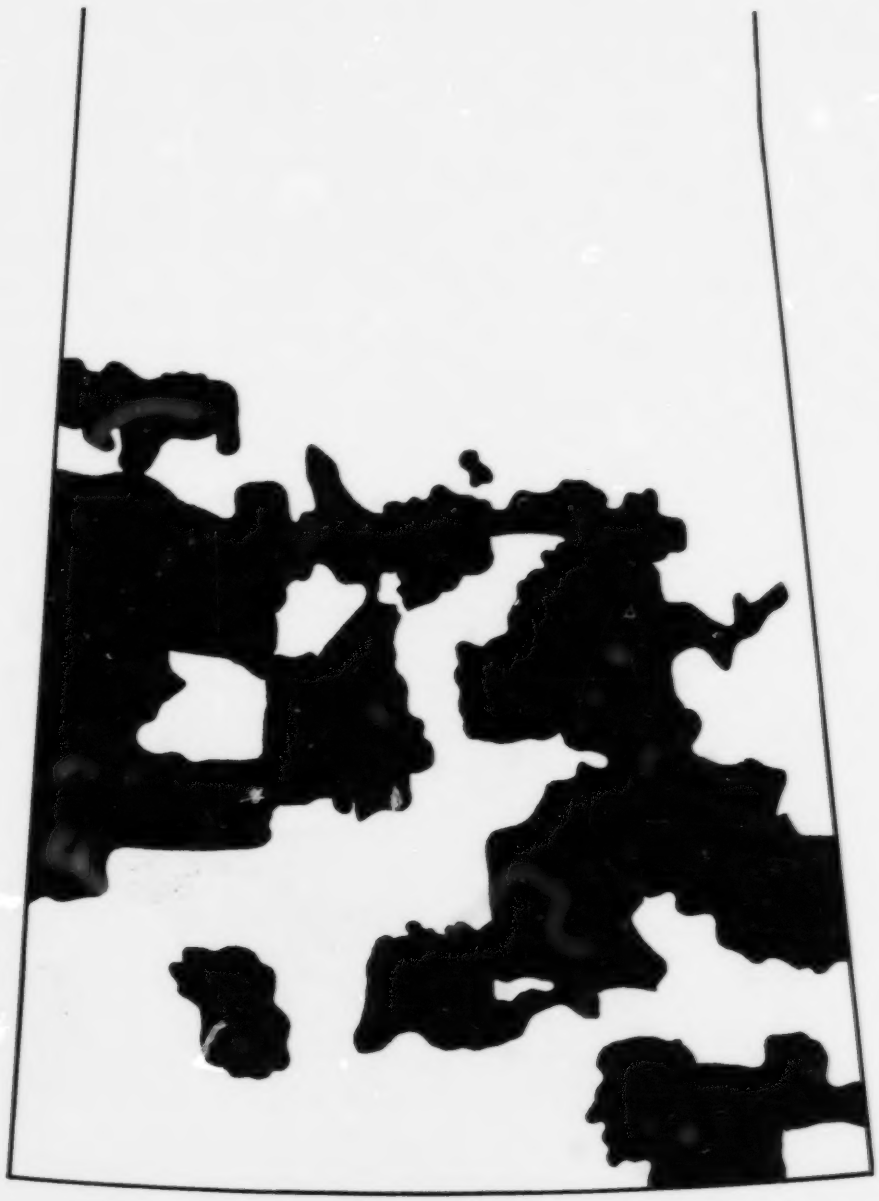

Figure 2. Enrolment density in Divisions I, II, and III (1984-85).

- High: 1826 to 2730 students
- Medium: High: 1096 to 1753 students
- Medium Low: 855 to 1089 students
- Low: 12 to 811 students

Division IV Schools. The number of Division IV schools in the province as follows shows the range of enrolments from fewer than 100 students, 100 to 299, 300 to 500, and over 500.

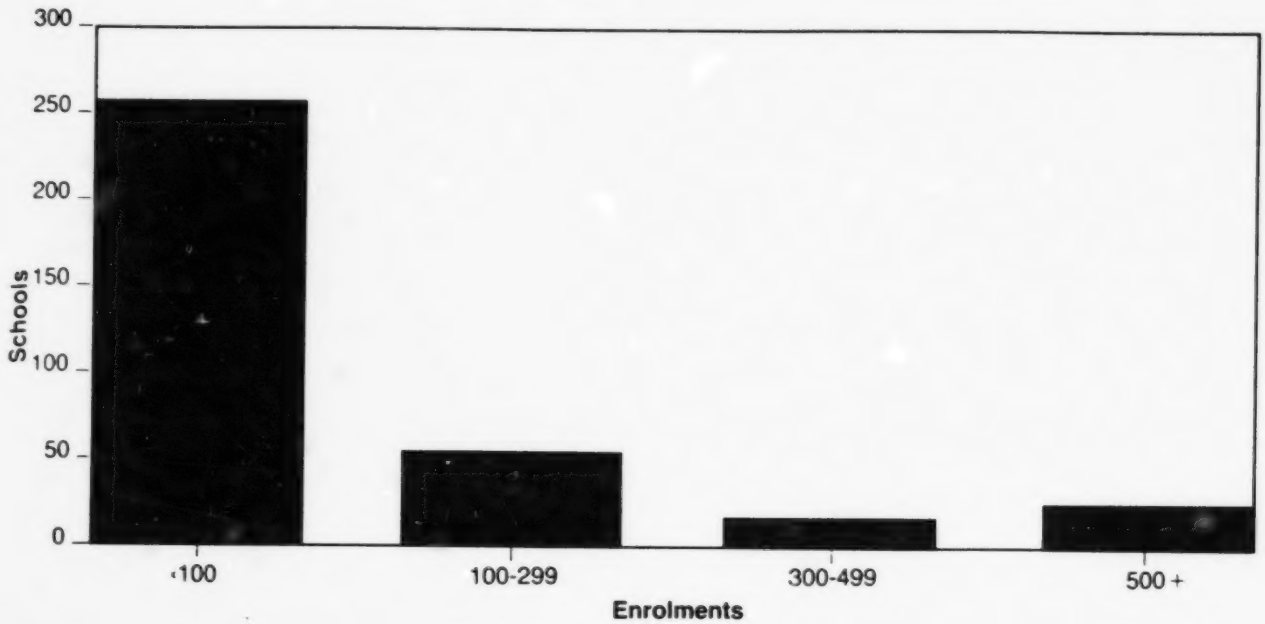

Figure 3. Number of schools by Division IV enrolment (1984-85).

Enrolment Overview

The Technical-Vocational Education/Comprehensive High Schools Review Committee examined information on enrolment in schools offering Division IV courses, and the utilization of courses among different kinds of Saskatchewan schools for the 1984-85 school year.

Schools Offering Division IV Programs. During 1984-85, 334 publicly funded schools in the province offered Division IV courses of study. The Committee looked at enrolment information in these schools according to the type of school: comprehensive high schools, urban schools (excluding comprehensives), non-urban schools (excluding comprehensives), private schools, and the correspondence school. Urban schools are those located in cities. Private schools are those nine non-public schools that offer Division IV courses and are recognized by the province for grant purposes. Comprehensive high schools are those 16 schools which receive special operating grant recognition, namely: A. E. Peacock, Moose Jaw; Balfour Collegiate, Campbell Collegiate, and Miller Comprehensive, Regina; Carlton Comprehensive, Prince Albert; Estevan Comprehensive, Estevan; Lloydminster Comprehensive, Lloydminster; L. P. Miller Comprehensive, Nipawin; Melfort Comprehensive, Melfort; Melville Comprehensive, Melville; Mount Royal Collegiate and Walter Murray Collegiate, Saskatoon; North Battleford Comprehensive, North Battleford; Swift Current Comprehensive, Swift Current; Weyburn Comprehensive, Weyburn; and Yorkton Regional, Yorkton. The enrolment given for the correspondence school is a straight head count not prorated to full time equivalent pupils.

The following table and figures display, across the five delivery systems, the 1984-85 Division IV enrolment.

Table 1

Province of Saskatchewan: 1984-85 Division IV Enrolments

Schools	Number	Students	% of Total[a]	Avg. Enrolment	
Non-City	276	16,953	34.7	61.4	
City	32	8,131	16.6	254.1	
Comprehensive	16	12,739	26.1	796.2	
Private	9	1,444	3.0	160.4	
Correspondence	1	9,597	19.6	9,597.0	
Total	334	48,864	100.0	146.3	(117.9)[b]

Note.

[a] Percentages rounded to the nearest one-tenth of one per cent.

[b] Total average enrolment exclusive of correspondence school.

The total number of students enrolled in Division IV schools across the province was 48,864, of which 16,953 were enrolled in non-city schools, 8,131 in city schools, 12,739 in comprehensive high schools, 1,444 in private, and the remainder 9,597 were enrolled at the correspondence school.

The average Division IV enrolment was 146.3 students per school. In non-city schools, offering a Division IV program, the average enrolment was 61.4 students, whereas the average enrolment in city Division IV schools was 254.1, in comprehensive high schools, 796.2, and in private schools 160.4.

The number of schools in each delivery system, which offer Division IV courses, is shown in Figure 4.

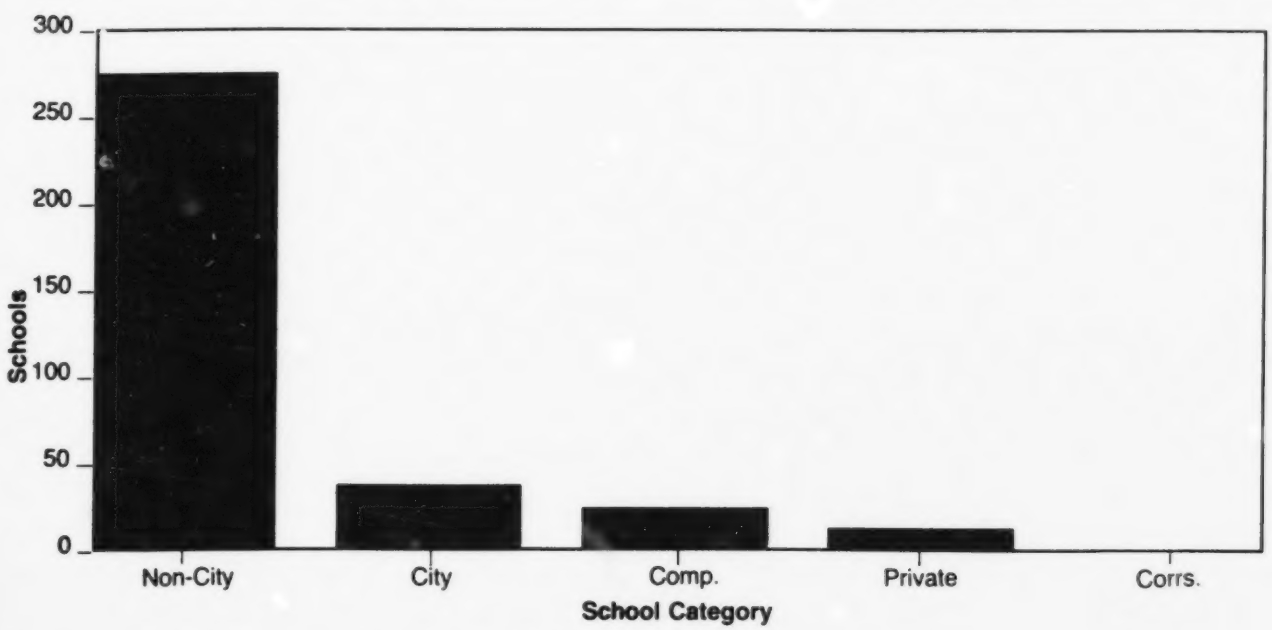

Figure 4. Schools with Division IV courses (1984-85).

For 1984-85, more students attended non-city schools than any other type, followed by comprehensive high schools and other city schools. The total enrolment in each type of school is displayed in Figure 5. Figure 6 shows the percentage of the total Division IV student population enrolled in each of the five types of school.

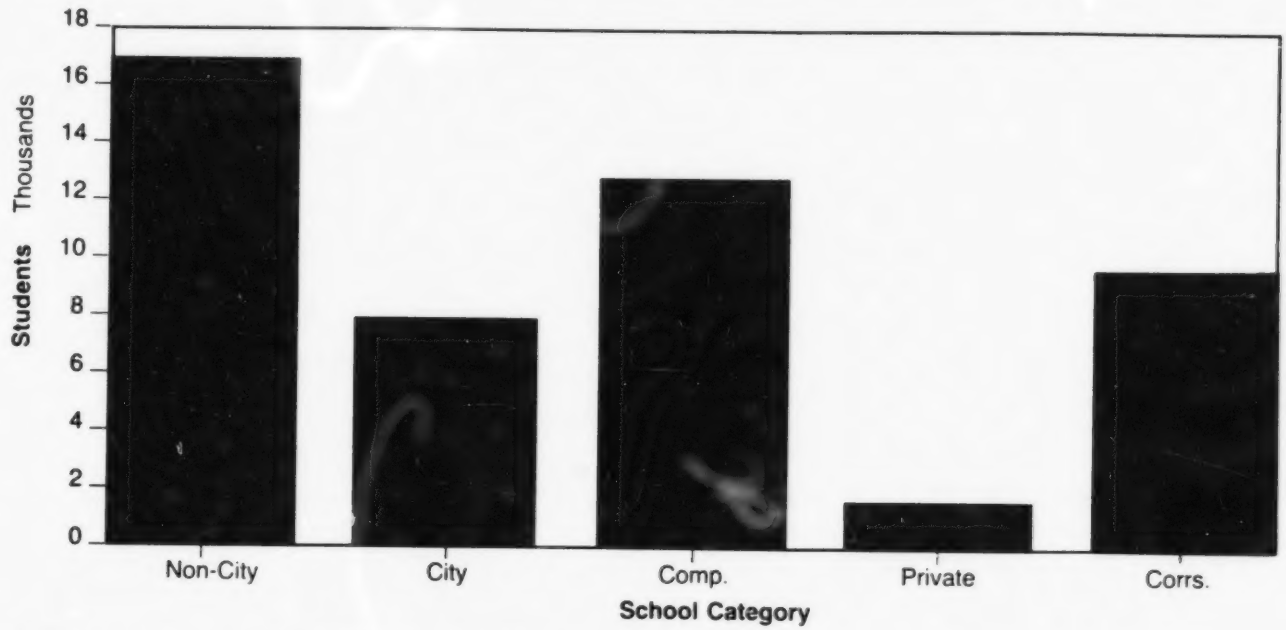

Figure 5: Division IV student enrolment (1984-85).

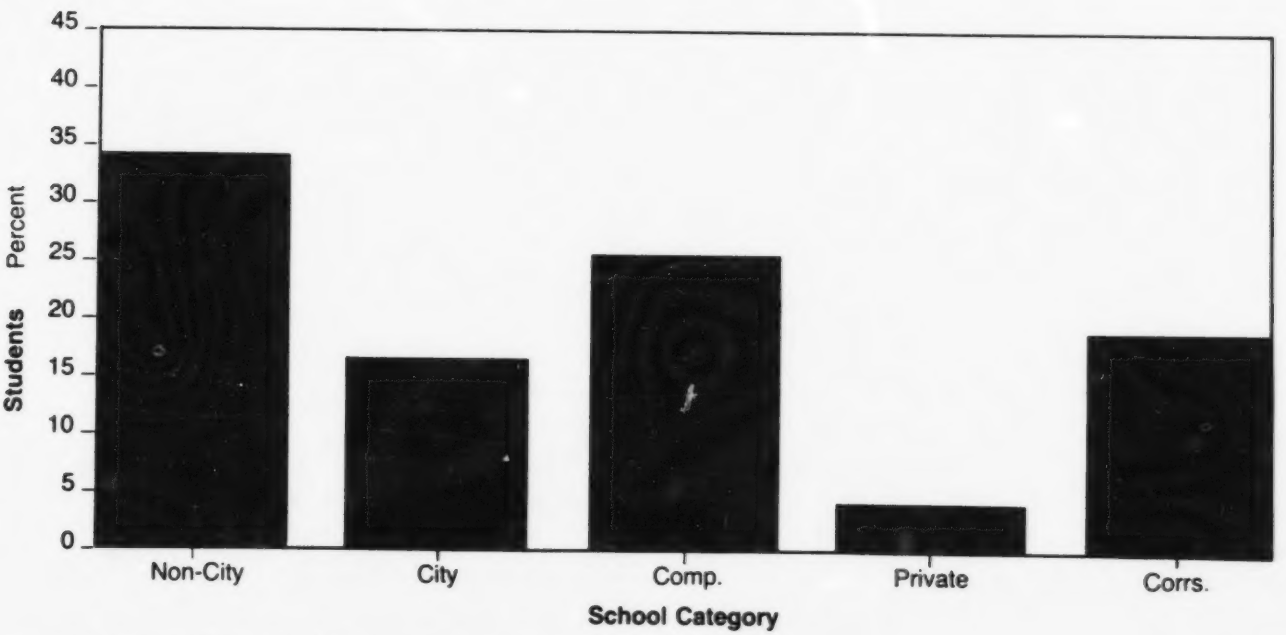

Figure 6. Percentage of total Division IV enrolment (1984-85).

If the correspondence school is disregarded because it is the only school in its type, the comprehensive high schools have the highest average enrolment per school, while on average, non-city schools have the lowest student enrolment. The average enrolment for each type of school is shown in Figure 7.

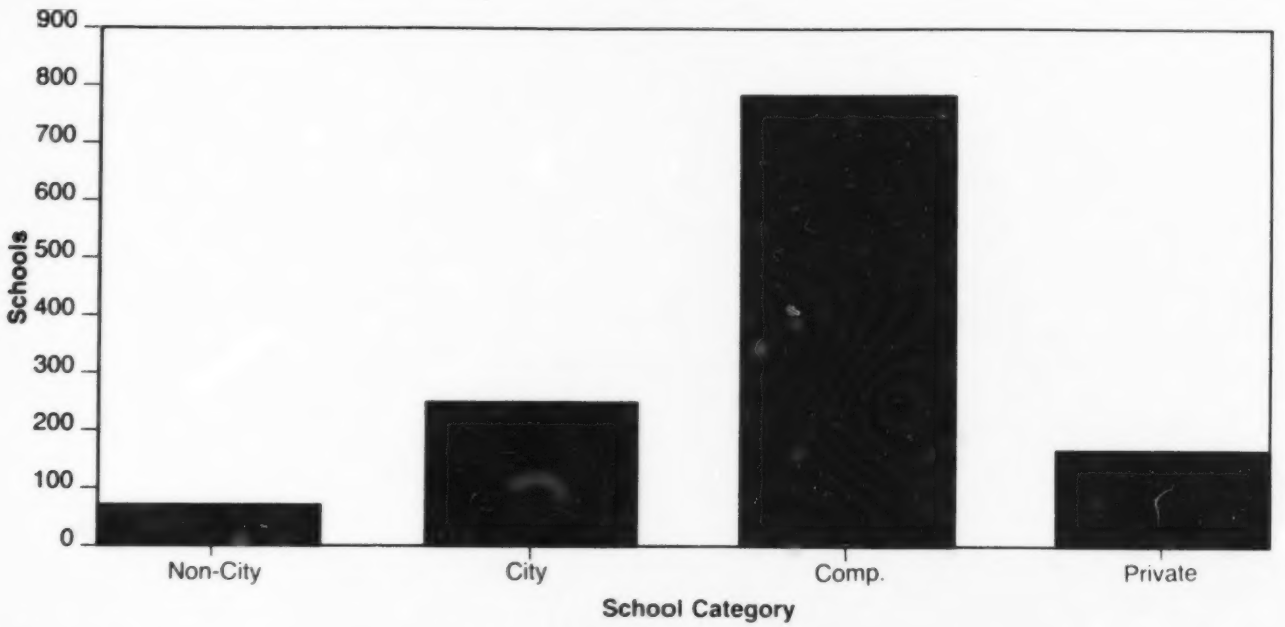

Figure 7. Average student enrolment in Division IV (1984-85).

Appendix C

Utilization of Division IV Courses

(1984-85)

Division IV Program Overview

To display Division IV courses of study, and to facilitate the comparison of course delivery among schools, a display of Division IV course areas and of enrolments in each area was prepared. Examples of courses of study relating to each of these areas are presented below.

Course Area	Examples of Courses
Business Ed. (16, 26, 36)	accounting, typing, data processing, shorthand
Industrial Arts (15, 25, 35)	drafting, graphics, industrial arts
Technologies (13, 23, 33)	agriculture, drafting, graphic arts, mechanical
Trades (14, 24, 34)	cosmetology, commercial cooking, building construction, welding, automotive training
Work Experience (17, 27, 37)	work experience education, occupational training academic, occupational training shop.
Fine Arts (10, 20, 30)	art, band, drama, orchestra
Home Economics (10, 30)	clothing and fashion, family life, interior design
Languages (10, 20, 30)	Cree, English, French, German, Ukrainian
Mathematics (10, 20, 30)	geometry, algebra, general mathematics
Physical Education (10, 20, 30)	physical education, special physical education
Physical Sciences (10, 20, 30)	biology, chemistry, physics
Social Sciences (10, 20, 30)	economics, geology, law, psychology, social studies
Other (10, 20 & or 30)	career education, christian ethics, general education, media, native studies, computer education

Utilization of Course Areas. Table 2 displays a direct comparison of credit utilization by students in course areas across comprehensive, city, non-city, private and correspondence high schools. Although all course areas are displayed, the Committee gave particular attention to utilization of business education, industrial arts, technical, trades, and work experience.

Table 2

Per Cent Utilization of Credits in Division IV Schools[a] (1984-85)

	Compreh	City	Non-City	Private	Corresp	Provincial	Male[b]	Female
Fine Arts	3.4	3.5	1.8	4.4	1.4	2.9	1.2	1.7
Home Economics	1.8	1.6	2.6	2.0	4.6	2.5	0.3	2.2
Languages	24.8	25.3	24.8	26.0	21.1	24.4	12.3	12.1
Mathematics	14.9	17.6	15.4	16.3	21.3	17.1	9.0	8.1
Physical Education	4.9	5.5	5.6	4.7	0.0	4.1	2.4	1.7
Physical Sciences	18.2	19.7	22.2	21.0	22.1	20.6	10.7	9.9
Social Studies	11.9	12.7	12.6	11.9	8.8	11.6	5.9	5.7
Other	1.3	4.8	1.5	6.8	1.9	3.3	1.6	1.7
Business Ed	7.8	6.2	9.9	4.9	17.7	9.3	3.0	6.3
Industrial Arts	1.0	1.5	3.0	1.1	0.0	1.3	1.2	0.1
Technical	3.0	1.0	0.1	0.4	1.0	1.1	1.0	0.1
Trades	6.7	0.3	0.3	0.2	0.0	1.5	1.1	0.4
Work Experience	0.3	0.2	0.1	0.4	0.0	0.2	0.1	0.1
Total	100.0	99.9	99.9	100.1	99.9	99.9	49.8	50.1

Note.

[a] Percentages rounded to the nearest one-tenth of one per cent.

[b] Distribution of provincial credit utilization between male and female students.

Business Education

Among courses numbered 13 to 17, 23 to 27, and 33 to 37, subjects classified as business education courses were the most highly utilized on a provincial level (9.3%), accounting for approximately 70% of all such provincial credits (13.4%). A breakdown of business education subjects utilized across each delivery system shows that

- 17.7% of all the correspondence school credits were in the business education course area and concentrated specifically in Accounting 16, 26, and 36
- 9.9% of non-city, 7.8% of comprehensive, 6.2% of city, and 4.9% of private high school credits were in the business education area, and were primarily in the subjects of Typing 16, 26, 36 and Accounting 16, 26 and 36
- the overall provincial ratio of female to male student credits was approximately two to one (2:1); female students 6.3% and male students 3.0%

Industrial Arts

- 3.0% of all non-city high school credits were divided, in descending order, among Industrial Arts 15, 25 and 35
- credits in this course area at the city (1.5%) and private (1.1%) high schools were primarily in Industrial Arts 15 and 25
- virtually only those industrial arts subjects at the 15 level were utilized at the comprehensive high schools and account for approximately 1.0% of all comprehensive high school credits. Among the other practical and applied arts courses, at the comprehensive high schools, credits were concentrated in the business education (7.8%), trades (6.7%), and technical (3.0%) course areas rather than industrial arts (1.0%)
- the provincial ratio of male (1.2%) to female (0.1%) student credits in industrial arts was about 12 to 1

Technical

- of the 3.0% of comprehensive high school credits in the technical area, approximately one-third were concentrated in Drafting 13, 23, and 33
- drafting also accounted for most of the technical credits at city (1.0%), correspondence (1.0%), private (0.4%), and non-city (0.1%) high schools
- the provincial ratio of male (1.0%) to female (0.1%) student credits in the technical course area was about 10 to 1

Trades

- in comparison to other delivery systems, comprehensive high schools had the highest percentage of credit utilization in the trade course area with 6.7%. The three subjects which had the highest percentage of credit utilization in comprehensive high schools, in descending order, were Automotive 14, 24, 34 (2.02%), Cosmetology 14, 24, 34 (1.35%), and Commercial Cooking 14, 24, 34, (1.15%)
- utilization of trade subjects in the other delivery systems was substantially lower than comprehensive high schools. In the city high schools, Automotive 14, 24, 34 accounted for 0.27% of the overall 0.3%, and in the non-city and private high schools Building Construction 14, 24, 34, accounted for most of the trade credits
- the provincial ratio of male (1.1%) to female (0.4%) student credits in the trade course area was approximately 2.7 to 1

Work Experience

- 0.4% of the credits utilized at private high schools were in work experience, followed by 0.3% at comprehensive, 0.2% at city and 0.1% at non-city high schools
- the overall ratio of male to female credits in work experience was the same at 0.1%

Appendix D

Briefs Submitted to the Technical-Vocational Education/ Comprehensive High Schools Review

1. *Addressing the Future: An Educational Plan for Saskatchewan Public Schools: 1985-1990*, Educational Services Department, Saskatoon Board of Education, November, 1984. (Received: January, 1985)

2. *General Education in Swift Current Comprehensive High School: A Report to the Comprehensive High School Board of Management*, Errol Whelan, January 15, 1985. (Received: January, 1985)

3. *Comprehensive School Review — Notes from discussion of Tuesday, January 22, 1985*, D. McCabe, January 23, 1985. (Received: January, 1985)

4. *Assessment of Technical/Vocational Education and Comprehensive Schools*, Deputy Director of Education, Department of School Services, Saskatoon Board of Education. (Received: January, 1985)

5. *Tech Voc Statistics*, Estevan Comprehensive. (Received: January, 1985)

6. *Technical Vocational Education*, Regina Public School Board, January 25, 1985. (Received: January, 1985)

7. *Balfour's Thoughts on Tech-Voc Education*, Balfour Collegiate, Bob Mitchell and Jim Toth. (Received: January, 1985)

8. *Cochrane High School*, Cochrane High School, Ken Forster. (Received: January, 1985)

9. *Thom Collegiate: Division IV Program*, Thom Collegiate, Bob Frohlick. (Received: January, 1985)

10. *Student and Program Enrolments*, Prince Albert Comprehensive, Jim Kerr, October 15, 1984. (Received: January, 1985)

11. *A Brief on Trends and Concerns in the Comprehensive Schools of Saskatchewan*, Melville Comprehensive School, Jack Hanowski. (Received: February, 1985)

12. *A Brief from the City of Melville on Trends and Concerns in the Comprehensive Schools of Saskatchewan: The Identification of Issues Related to the Role and Philosophy of Comprehensive Schools in Saskatchewan*, City of Melville, John Sedlovitch, March, 1985. (Received: April, 1985)

13. *Computers in Education: Implications for Business Education*, A position paper by Saskatchewan Business Teachers' Association, Dennis Moffat, March, 1985. (Received: May, 1985)

14. *Core Curriculum Defined: A Brief Statement of Position on Core Curriculum*, Saskatchewan Comprehensive High School Principals to the Core Policy Advisory Committee Saskatchewan Education, A. Wayne Kerr, June, 1985. (Received: July, 1985)

15. *Report of the Saskatchewan Teachers' Federation Ad Hoc Committee on Comprehensive High Schools*, Saskatchewan Teachers' Federation, January, 1986. (Received: February 20, 1986)

16. *Northern Position Paper*, Rolf Jansson, March 1986. (Received: March 24, 1986)

17. *Community College Use of Comprehensive Schools*, North Battleford Community College, Bryan Dunleavy, April, 1986. (Received: April, 1986)

18. *Position Paper Presented to Technical-Vocational/ Comprehensive High School Review Committee from Saskatchewan Industrial Education Association*, Al Hiebert, April 3, 1986 (Received: April, 1986)

19. *A View for Consideration for Technical-Vocational/ Comprehensive Schools Review Committee*, Saskatchewan Business Teachers' Association Executive, May 20, 1986. (Received: June, 1986)

20. *Saskatchewan School Trustees Association Position Paper to Technical-Vocational Committee*, Jake Volk, August, 1986. (Received: September, 1986)

21. *Keepers of the Dream: A Paper for the Technical-Vocational Education/Comprehensive High Schools Review Committee*, Errol Whelan, October 13, 1986, (Received: October 14, 1986)